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PUBLIC HEALTH SERVICE
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NIH SUPPORTS NEW TRANSLATION PROGRAM

The Congress this year earmarked NIH funds to provide for a broad program of translating and disseminating Russian publications in the biological and medical sciences. This new service will acquaint American scientists more promptly with the findings of Russian medical research.

The program is coordinated with similar programs of the National Science Foundation and the Atomic Energy Commission in the fields of medicine and biology. It will be executed through grants and contracts.

Initially, the 1956 issues of two translated Russian journals--"Biochemistry" and "Bulletin of Experimental Biology and Medicine"--have been purchased from Consultants Bureau for distribution to American medical libraries. Consultants Bureau will simultaneously offer these for sale at a reduced price.

Other Russian journals to be published in English editions are as follows: "Biophysics," "Sechenov Physiological Journal of the USSR," "Questions of Virology," "Questions of Oncology, and Journal of Microbiology; Epidemiology, and Immunobiology." Four sections of the "Soviet Medical Reference" will be translated and distributed.

The program also calls for the publication of a Russian-English medical dictionary, a directory to Soviet research institutes, and a guide to translating services. A limited number of monographs will be translated, and the Special Libraries Association Translation Center at the John Crerar Library, Chicago, will be supported in co-operation with the National Science Foundation. Support will also be given to review papers in specific research fields.

The program is administered by Scott Adams, NIH Librarian.

SCIENTISTS ADDRESS VISITING GROUP



Mrs. Frances Hutchins, NINDB, (center), points out features of a patient's room in the Clinical Center to members of the National Society of Crippled Children and Adults.

Over a hundred members of the National Society of Crippled Children and Adults visited NIH on October 31. They attended a program presented by NINDB which included talks by NIH scientists and a tour of the Clinical Center.

Representatives of the Society from all over the United States held their annual convention at the Statler Hotel. The visitors were eager to learn of medical techniques being developed here to aid the handicapped. Drs. Pearce Bailey, G. Milton Shy, and William F. Windle, all of NINDB, spoke on subjects related to crippling diseases.

NIH ENDS UGF DRIVE WITH 90% OF QUOTA

The UGF drive closed November 1 with 90 percent of the 1956 quota reached. Eighty-seven percent of the NIH staff participated in the campaign, and contributions totaled \$46,641. Special recognition goes to DRG, OD, NIMH, DBO, and NIDR for surpassing their quotas.

NEW CENTER FOR RESEARCH ON AGING

A new Center for Aging Research on health problems of older people has been established at NIH. Dr. G. Halsey Hunt, now Associate Chief, Bureau of Medical Services, PHS, has been appointed to head the program, and will assume his new duties on November 19.

The primary objective of the Center is to encourage and support additional research on aging processes. Assistance will be given to universities and other research institutions in establishing a broad research program that will bring the full range of biological, psychological, and social sciences to bear on the aging problem.

The new Center will more effectively coordinate research activities, and will stimulate the additional research that is urgently needed to obtain solutions to the serious problems presented by the aging population.

(See Aging, Page 4)

CPT, A Test for Brain Damage

No. 173 in a Series



Dr. Allen Mirsky (right) and assistant demonstrate use of the CPT.

A new technique for studying conditions that alter the functioning of the brain has been developed by Drs. H. Enger Rosvold and Allan F. Mirsky, psychologists in the Laboratory of Psychology, NIMH. The test--Continuous Performance Test (CPT)--may eventually permit the differentiation of brain-damaged individuals from those whose behavior is disturbed from other causes.

The CPT requires the continuous performance of simple visual recognition tasks over specified periods of time. There are two tasks: "X" and "AX." The X task requires the subject to press a key whenever the letter X appears in the viewer of the testing device. The more difficult AX task also requires the person to signal when X appears--but only if X is immediately preceded by the letter A.

Normal subjects have little difficulty and make few errors. Persons with brain disorders, however, tend to make many errors. Their performances become increasingly poor as the difficulty of the task increases.

In the first study with the instrument (at Yale University), three groups, totaling 167 persons, were studied. Each group consisted of a brain-damaged and a non-brain-damaged subgroup.

The first group comprised 72 institutionalized mental defectives. In the Continuous Performance Test, defectives with known brain damage performed more poorly than those diagnosed as "familial"--retarded presumably from hereditary causes, with minimal or no brain damage.

Both samples were matched in terms of over-all intelligence and age.

The second group comprised children of normal intelligence. In this group, children with brain damage (mostly cerebral palsy) performed more poorly than children without brain damage.

In the third group, comprising adults with normal intelligence, those with brain damage performed more poorly than those without damage.

Other studies using CPT have been conducted at NIH. There have been several investigations of the effects of drugs, including chlorpromazine, in an attempt to specify the function tapped by the technique. Additionally, a large number of epileptic patients have been tested in an effort to find behavioral correlates of the differences between various epileptic subpopulations. Further investigation along these lines is in the planning stage or under way.

A new instrument currently being constructed will permit extensive variation in the nature and complexity of the continuous task, and will enable simultaneous recording of the behavior of the subject and his electroencephalogram.

While these NIMH scientists have only begun to work with the Continuous Performance Test, it holds promise as a tool for the investigation of brain function, and may prove useful as a clinical instrument for diagnosing brain damage.

Collaborators in the project at NIMH include Daniel Primac, Richard Bates, and Arthur Townsend.

Publication Preview

The following manuscripts were received by SRB Editorial Section between October 2 and October 18.

Allen, A. M. Pulmonary hydatid disease in a rhesus monkey.

Altland, P. D., et al. Effects of high altitude exposures on dogs and on their susceptibility to endocarditis.

Anderson, E. P., et al. Defect in the incorporation of galactose-1-phosphate into nucleotides in liver tissue from patients with congenital galactosemia.

Anderson, E., et al. The effects of midbrain and spinal cord transection on endocrine and metabolic functions.

Arnold, F. A., Jr. The Dental Research Grants and Fellowships Program of the Public Health Service.

Bartlett, R. G., Jr. Evidence for "diffusion respiration" in rhythmic breathing.

Bartlett, R. G., et al. Heat balance in restraint (emotionally) induced hypothermia.

Berliner, R. W., et al. The public health laboratory in the community control of heart diseases.

Biometrics Branch, Staff, NIMH. Patients in mental institutions 1953 - Part III - Private hospitals for the mentally ill and general hospitals with psychiatric facilities.

Biometrics Branch, Staff, NIMH. Patients in mental institutions 1953 - Part IV - Private institutions for mental defectives and epileptics.

Blum, H. F. On the origin of self-replicating systems.

Bouser, M. M. The role of vaginal cytology in cancer control.

Bowen, W. J., et al. The effect of monovalent salts on the acceleration of myosin B ATPase by magnesium.

Briggs, G. M., et al. Lack of effect of thioctic acid upon growth of chicks fed complete and deficient diets.

Brodie, B. B., et al. On the mechanism of action of reserpine: Effects of reserpine on capacity of tissues to bind serotonin.

Cotten, M. deV., et al. The effects of increased reflex sympathetic activity upon the contractile force of the heart.

Davis, D. J. Occurrence of influenza - July 1955 to June 1956.

Davis, J. O., et al. Increased aldosterone secretion in dogs with right-sided congestive heart failure and dogs with thoracic inferior vena cava constriction.

Duggan, D. E., et al. A spectrophotofluorometric study of compounds of biological interest.

Emmons, C. W. Fungus infections.

Fahey, J. L. Toxicity and blood ammonia rise resulting from intravenous administration of L-amino acids, and prevention of these effects with L-arginine.

Fahey, J. L., et al. The function of the Krebs-Hensleleit cycle in preventing blood ammonia elevation from intravenous L-amino acid administration.

Freeman, M. V. A fluorometric method for the measurement of 4-amino-10-methyl pteroylglutamic acid in plasma.

Hayes, R. L., et al. Post-eruptive effects of fluoridation on first permanent molars in children in Grand Rapids, Michigan.

Heller, J. R. Cancer.

Heller, J. R. Evaluation of the validity of uterine cytology.

Heller, J. R. Keynote remarks on uterine cytology.

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Hendler, R. W. A study of carbon dioxide fixation in the hen oviduct.

Hertz, R. Chemotherapeutic studies of hormone-producing tumors of adrenal and trophoblastic origin.

Hickman, J., et al. Enzymatic phosphorylation of D-xylulose in liver.

Hochstein, P. Glycolysis by tumor mitochondria.

Hurwitz, J., et al. The enzymatic cleavage of adenylic acid to adenine and ribose 5-phosphate.

Johnson, R. L. The role of the nurse in clinical research.

Jones, E. A. Communications in planning new facilities.

Kaiser, R. F. Cancer control activities of the National Cancer Institute.

Katagiri, M., et al. Enzymatic degradation of beta-ketoadipic acid.

Knowlton, K., et al. Metabolic changes following transection of the spinal cord in dogs.

Kohls, G. M. The ticks (Ixodoidea) of Micronesia.

Kornetsky, C. The relationship between certain physiological and psychological effects of lysergic acid diethylamide.

Lamson, W. C. Mental health in social casework.

Louria, D. B., et al. Amphotericin B in experimental histoplasmosis and cryptococcosis.

Mickelsen, O. Is toxicology enough for a food protection program?

Mider, G. B. Control of cancer through research.

Morris, H. P., et al. Carcinogenicity of some ingested acetylated mono and diamino-biphenyl compounds in the rat.

Morrow, A. O., et al. The left atrial pressure pulse in mitral valve disease.

O'Rourke, J. F., et al. Fundamental limitations of radiophosphorus counting methods used for detection of intracellular neoplasm.

Prescott, B., et al. Increase in the tolerated dose of isoniazid in mice by the use of cycloserine.

Rendtorff, R. C., et al. The role of nematodes in opening the portal of entry for viruses of Shope's fibromas and papillomas of rabbits.

Robbins, J., et al. The interaction of thyroid hormones and protein in biological fluids.

Shacter, B., et al. Azaguanine deaminase activity of several lymphocytic leukemias of mice.

Shakow, D. Artificial limbs--their human owners.

Shannon, J. A. A scientist's view of the nurse in medical research.

Shelton, E., et al. Comparison of the reduction of two tetrazolium salts with the succinoxidase activity of mouse tissue homogenates.

Shock, N. W. Age changes in some physiological processes.

Siepert, A. F. Gold is not all that glitters.

Stetten, D., Jr., et al. Glycogen turnover and metabolic inhomogeneity.

Stohlman, F., Jr., et al. Comparison of hemolysis following the insertion of lucite and silastic ball-valves into the circulatory system.

Stohlman, F., Jr., et al. The erythropoietic response to hypoxia.

Tower, D. B. The chemical architecture of the central nervous system.

Uhr, J. W., et al. Delayed hypersensitivity. II. Induction of hypersensitivity in guinea pigs by means of antigen-antibody complexes.

Van Buren, J. M. Septic retinitis due to *Candida albicans*.

Vaughan, M. Studies on the mechanism of action of orinase.

von Sallmann, L. The lens epithelium in the pathogenesis of cataract.

Waalkes, T. P., et al. The *in vivo* release of histamine from rabbit blood by reserpine.

Waite, J. H., et al. A bronchial pouch preparation for carcinogenesis studies.

Wells, C. E., et al. The neurological manifestations of the acute leukemias: a clinical study.

Wyngaarden, J. B., et al. Physiological disposition and metabolic fate of infused pentoses in man.

Young, M. D. The response of *Plasodium* malariae infections to pyrimethamine (Daraprim).

NIH Spotlight



Durus Davis

One might call Durus Davis happy-go-lucky. Actually the smile in his voice and his unceasing cheerfulness reflect a contentment that many strive for but few achieve.

Durus was born in Woodstock, in the peaceful Shenandoah Valley of Virginia. Here he roamed the hills and the woods, where he learned to love nature and animals.

Durus's youth revolved around outdoor life and sports. His interest and ability in sports won him a place on the Woodstock high school track team, although he preferred swimming, tennis, and baseball.

His crowning achievement, however, was in the scholastic field. He was graduated with honors from Woodstock high school, and missed being the salutatorian of his graduating class of 40 students by less than one percentage point.

After his graduation the restlessness of youth sought fulfillment in adventure. He struck out for the Great Lakes and shipped on an ore boat as an oiler in the engineroom. His ship was a floating international community, which contained immigrants from all parts of the world. During the winters, when the Lakes were frozen, Durus hibernated in Woodstock and consumed scores of books, mostly on history.

After three seasons, Durus's efforts to get a marine engineer's license were thwarted by the 1929 depression. With the suspension of much shipping, Durus came to Washington to work for the Standard Oil Company. He feels, however, that

DR. PATRICK HONORED AT FAREWELL DINNER

Dr. Donald Patrick, former CC Director, was honored October 30 at a farewell dinner at the Officer's Club of the National Naval Medical Center. Dr. Patrick has been appointed Medical Officer, PHS Hospital, San Francisco, California, and will assume his new duties on November 19.

New Parking Available

A new parking lot has been opened for use by NIH employees and visitors. This is located west of the Clinical Center, between Center Drive and the new extension of South Drive. It is expected to relieve some of the critical shortage of parking spaces. Temporary parking is also available on the ball diamond.

Efforts are being continued to develop additional parking areas especially around the Clinical Center and Buildings 6 and T-6. It is hoped that additional parking can be made available south of the Clinical Center adjacent to the new extension of South Drive.

his experience on the Lakes was valuable, for "one cannot work on a ship and fail to learn something about human nature."

Durus came to NIH in 1941 as a laboratory attendant and has moved up steadily. He is a research technician in the Laboratory of Viral Products, DBS, and is in charge of handling monkeys at the time of their final examination in the safety testing of the polio vaccine.

Previously, Durus was supervisor of the Laboratory Attendants Section, NIH. While under his supervision, this unit received a \$2400 efficiency award. During World War II he worked on arsphenamines and on pyrogen testing of blood plasma in the Laboratory of Biologics Control.

Durus is married and has two children. During the summer, the family divides its vacation between Woodstock and the Maryland mountains. Since Durus likes the quiet, sequestered life, his spare time is spent watching sports on television, fishing on the Potomac at Seneca, Md., and reading mystery stories. When he retires, he will return to the quiet and calm of the Shenandoah.

EMPLOYEES RETIRE UNDER NEW PLAN



Dr. Eloise B. Cram

Several NIH employees are retiring under benefits of the new Federal retirement plan.

Dr. Eloise B. Cram, medical parasitologist in the Laboratory of Tropical Diseases, NIAID, retired October 31 after 35 years of Government service. She began her scientific career with the Department of Agriculture as a zoologist. Since coming to NIH 19 years ago, she has planned and directed the activities of the Section on Helminthic Diseases, as well as conducted research. Dr. Cram is an internationally recognized authority on helminthic diseases, and is the author of numerous scientific publications.

John A. Schricker, chemist in the Endocrinology Branch of NCI, retired October 31 after 37 years with the Government. He was previously employed at the Department of Agriculture, and since coming to NIH in 1949 has done research on vitamin and hormone aspects of cancer.

Another retiring NCI employee is Miss Mary B. Shehan, administrative assistant, who came to NIH in 1946. She began her Government career in 1918 with the Adjutant General's Office. Miss Shehan retired October 31.

Hamsters To Present Mystery Thriller

Agatha Christie's mystery "The Mousetrap" will be presented by the Hamsters on November 15 and 16, at 8:30 p.m., in the CC Auditorium. Tickets priced at \$1.00 each may be obtained in the CC lobby or from R & W representatives.



EMPLOYEE HEALTH NOTES

Headache, one of our most common complaints, is not a disease. It is a symptom of some underlying disorder, and successful diagnosis depends upon an accurate history and description.

In determining the cause of headache, the physician must consider such factors as frequency, duration, location, and time of day. It is also important to know the person's activity, emotional state, and family history. A thorough physical examination is sometimes necessary.

Headaches linked with emotional stress and anxiety are the commonest types, and may last as long as these conditions exist. Migraine headache is a common recurring type. Often it is made worse by lying down or exercising; conversely, it may be relieved by sitting up and keeping quiet. Sinus headache usually begins in the morning and improves during the day.

More intense headaches are usually caused by meningitis, high blood pressure, ruptured blood vessels in the brain, and brain tumor. Fortunately, such causes are rare.

Minor headaches can be successfully treated with a number of related home remedies. The most common, of course, are aspirin, occasionally used in a buffered form, and APC, which usually has a more potent action than aspirin.

Anyone who has continual, severe headaches or an increase in the severity of recurring mild headaches should consult his physician.

DBS Employee Receives Award

George Gardner, Jr., bacteriologist in the Laboratory of Viral Products, was awarded \$25 for designing a container for storing, autoclaving, and dispensing rubber stoppers for the thousands of tubes and bottles of tissue culture prepared each week in DBS.

The new method, now in use, not only decreases the chance of contamination, but saves approximately 10 man-hours per week. The presentation was made on November 1 by Dr. Roderick Murray, Director, DBS.

NEW SERVICE CENTER AIDS DRUG RESEARCH

To administer a two-million dollar Congressional appropriation for drug research, PHS has established the Psychopharmacology Service Center as part of the Research Grants and Fellowships Branch, NIMH.

Headed by Dr. Jonathan O. Cole, the Service Center has been operating since late August and now has a three-man staff. Plans call for a staff of 12: a psychiatrist, two psychologists, a pharmacologist, a statistician, and seven administrative and clerical employees.

The function of the Center is to stimulate and coordinate research on psychopharmacologic agents in institutions throughout the country, and to assist in the screening of applications for NIMH grants for drug research. The Center also offers technical assistance and advisory services to scientists engaged in drug study, and will encourage the development of research in areas needing special attention.

The testing of new and widely used agents, such as the tranquilizing drugs, requires an expanded, intensive program of clinical investigation. The Service Center hopes to arrive at some significant evaluation of psychopharmacologic agents.

As a preliminary to this program, special studies will be made of the use of drugs in relation to hospital admission and discharge statistics. Plans for follow-up investigations of released hospital patients are being studied. A detailed file is being developed on drug research, past and present, and on projected research programs.

AGING Cont.

Creation of a Center for Aging Research in PHS is in line with the program developed by the Federal Government through the Federal Council on Aging and its member agencies. The Council is organized to coordinate all activities associated with the aging problem.

The Director of the new program, Dr. Hunt, is a graduate of Brown University and Columbia University College of Physicians and Surgeons. He served his internship and residency in surgery at Presbyterian Hospital, New York, and after four years of private practice was commissioned in the Regular Corps of PHS in July 1936.